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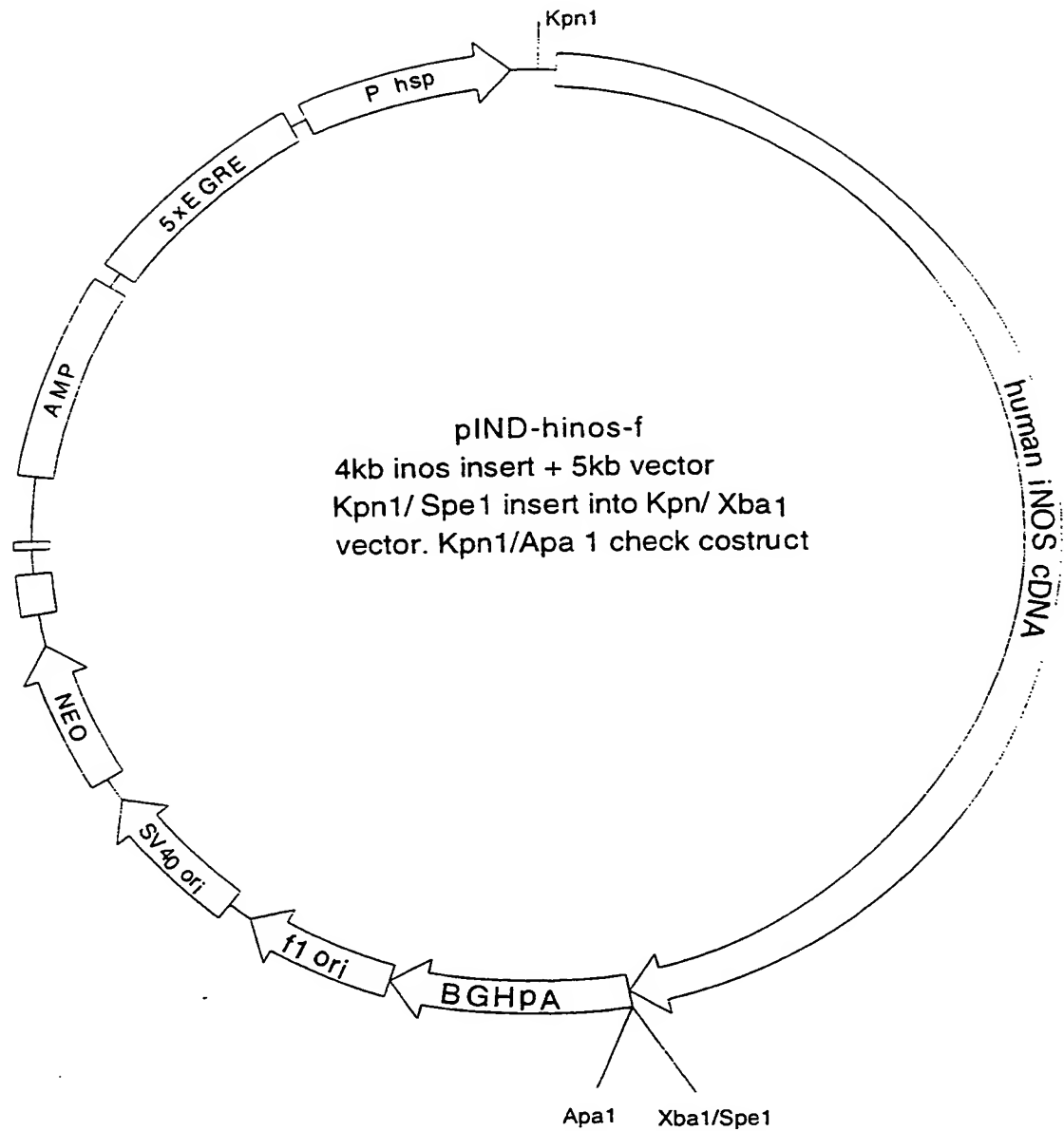


Figure 1a

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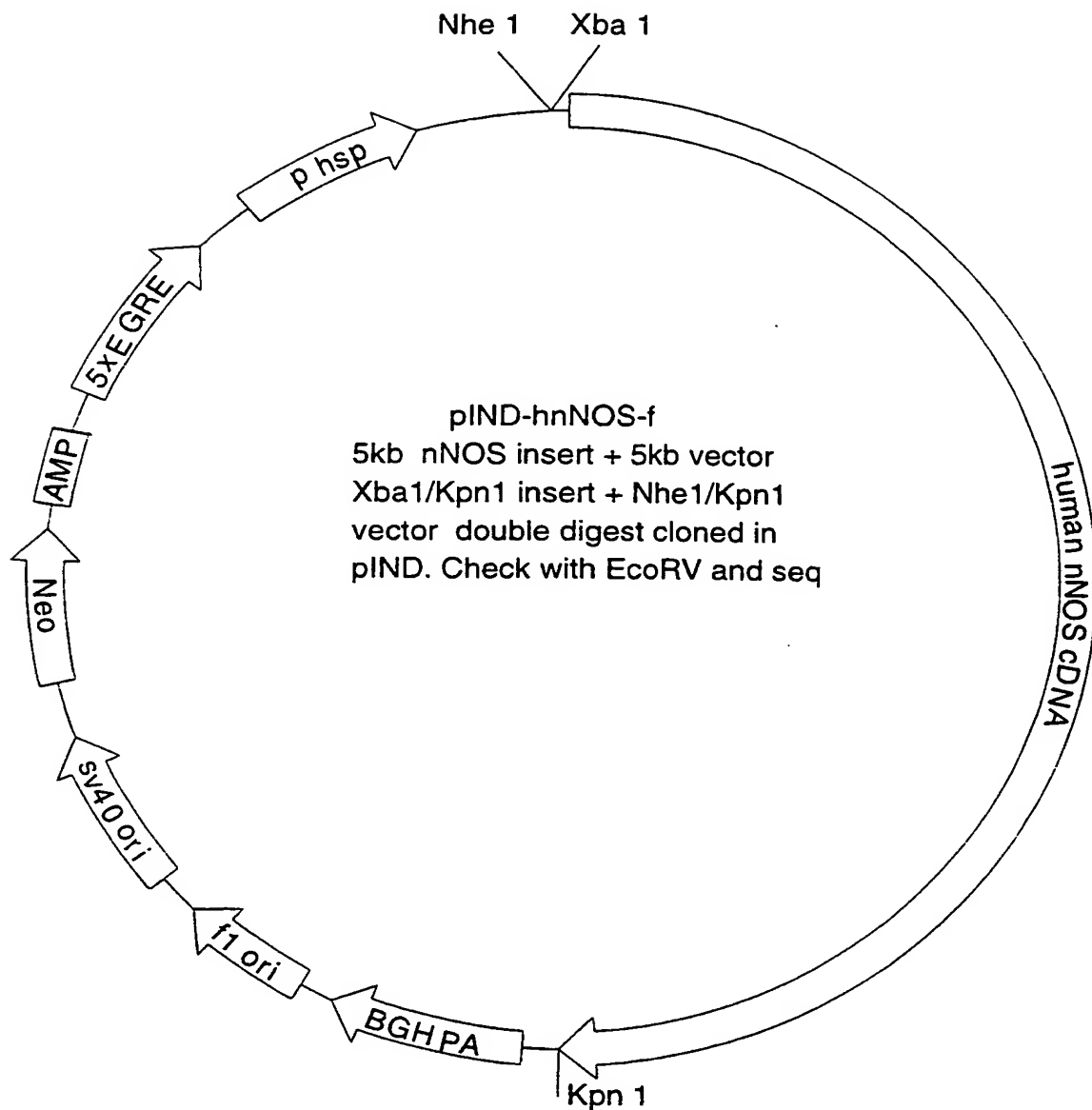


Figure 1b

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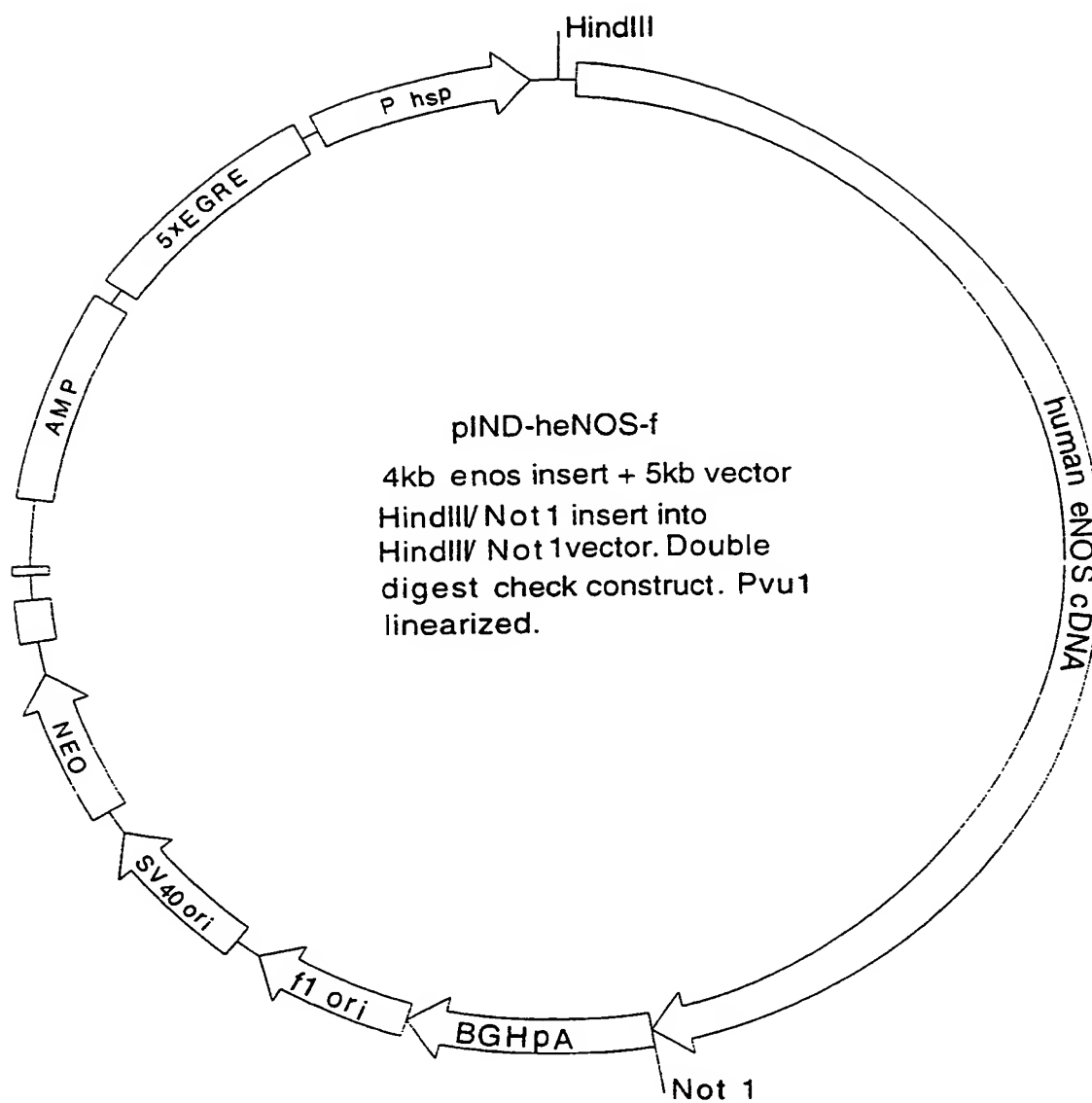


Figure 1c

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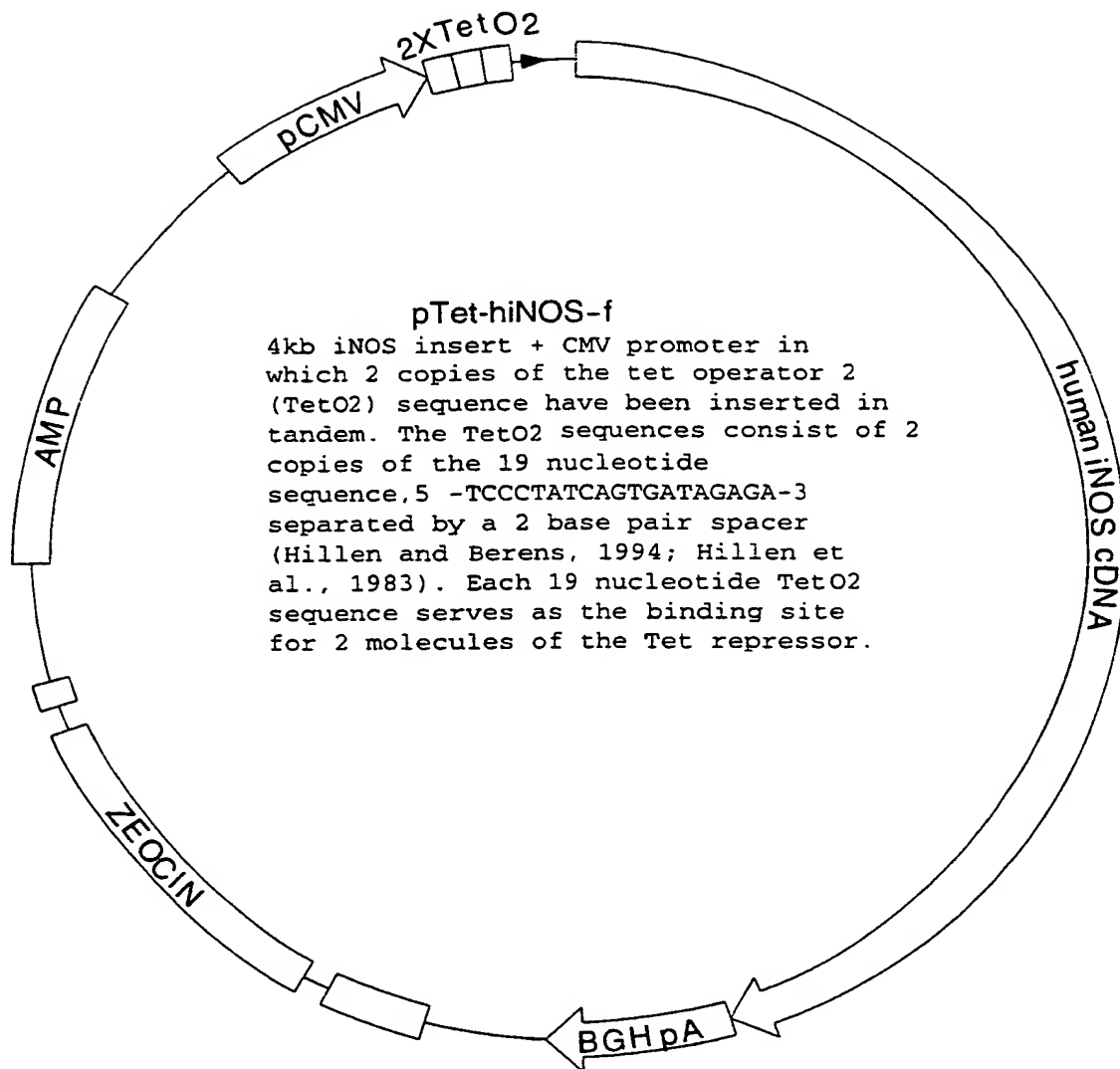


Figure 1d

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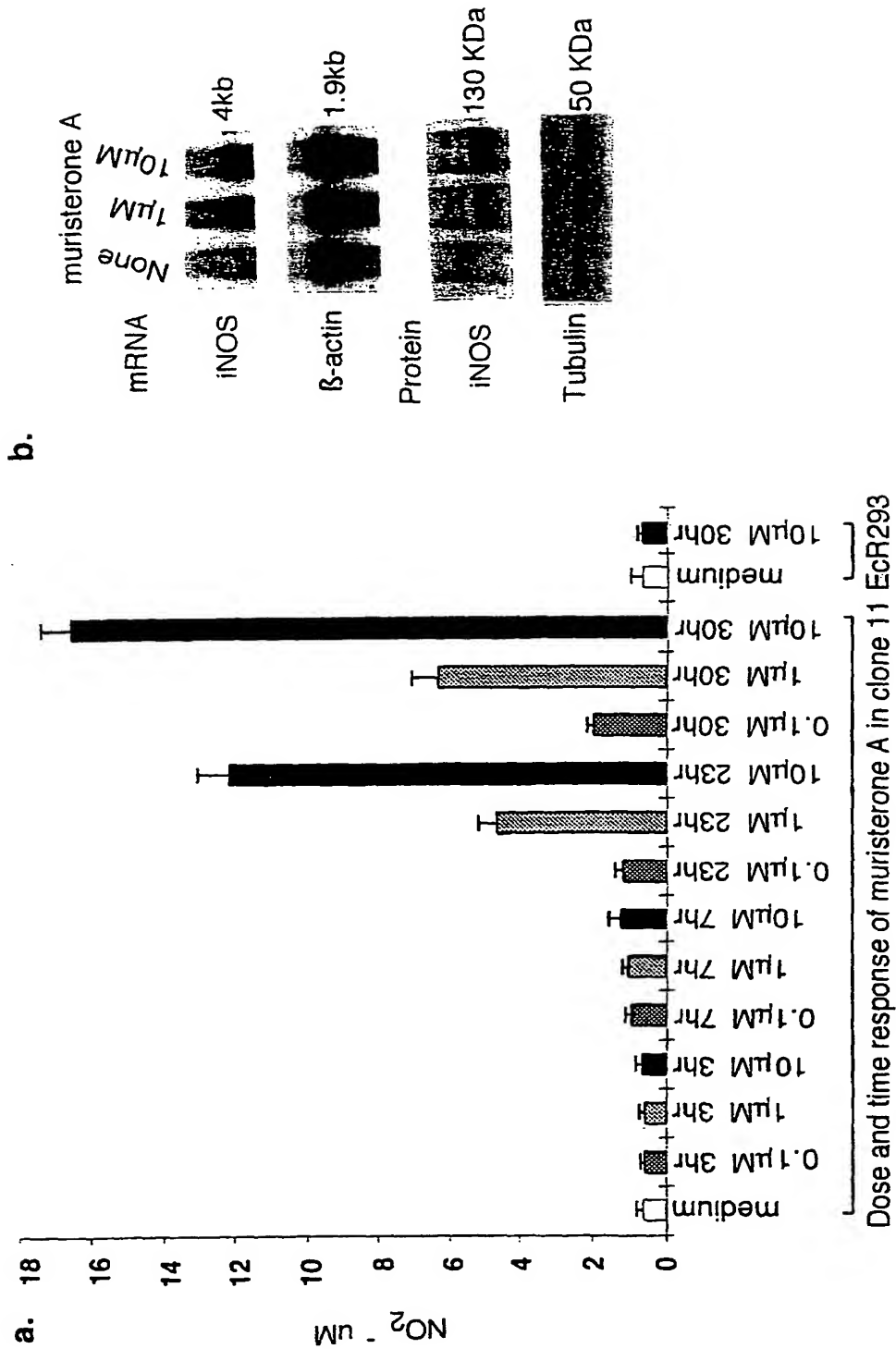
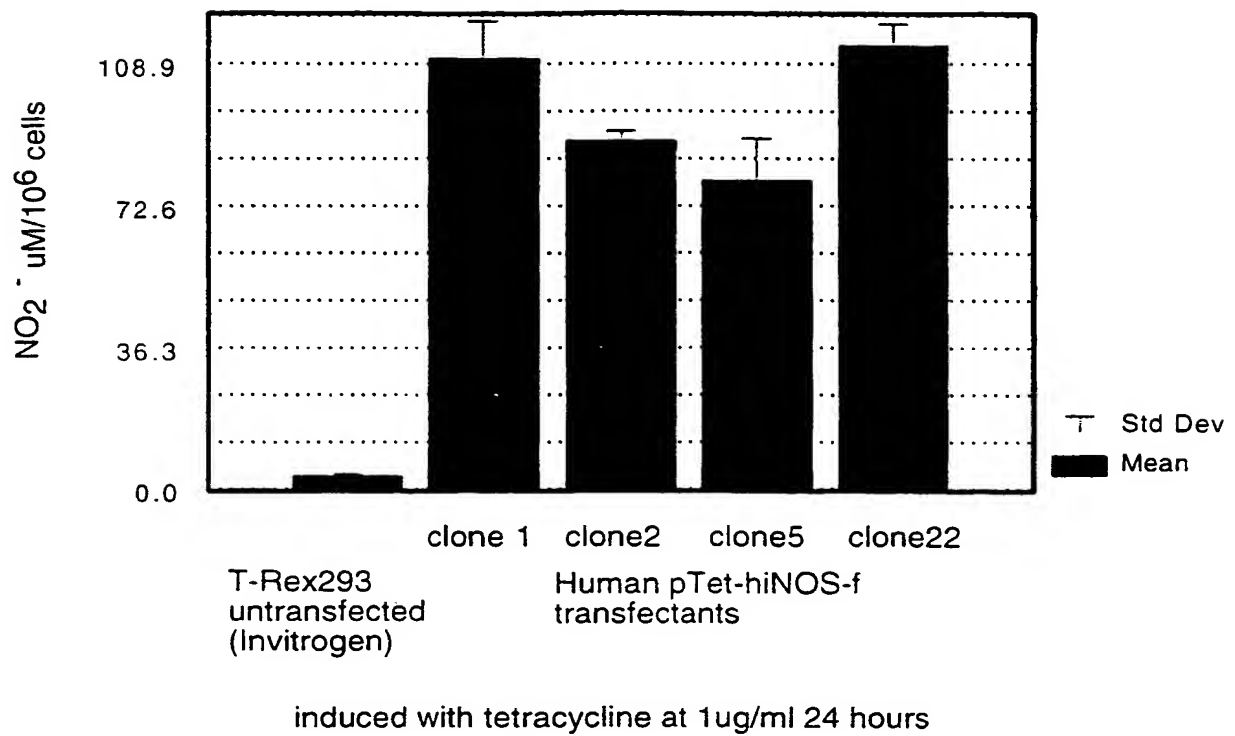


Figure 2

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**Figure 3**

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**Step 1**

Alginate:

two uronic acids:

D-mannuronic acid (M) and

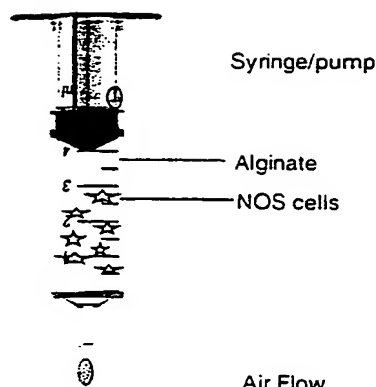
L-guluronic acid (G).

+

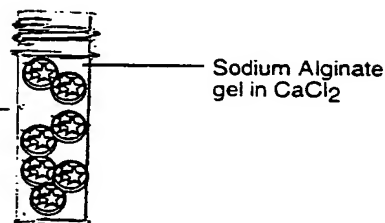
Nitric oxide synthase cDNA transfected cells

Cells mixed with

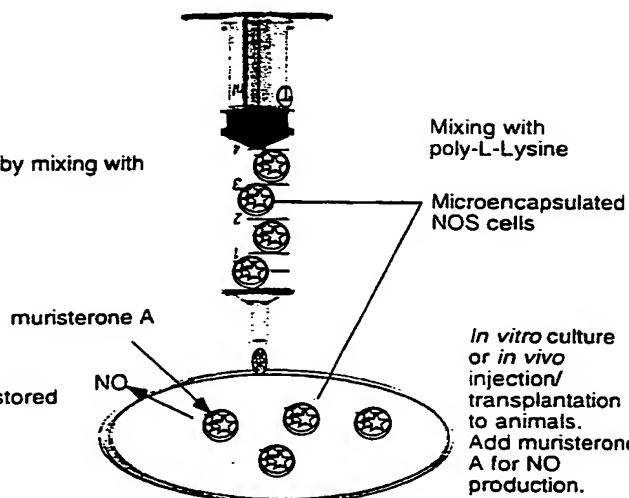
Sodium Alginate

**Step 2**Drop through needle into  $\text{CaCl}_2$  solution

$2 \text{Na}(\text{Alginate}) + \text{Ca}^+$  (soluble in water)  
 $\text{Ca}(\text{Alginate})_2 + 2 \text{Na}^+$  (insoluble in water)  
 forming G-G-M-M-G polymer beads  
 with nitric oxide synthase cDNA  
 transfected cells inside the beads

**Step 3**

The beads may be hardened by mixing with poly-L-Lysine solution

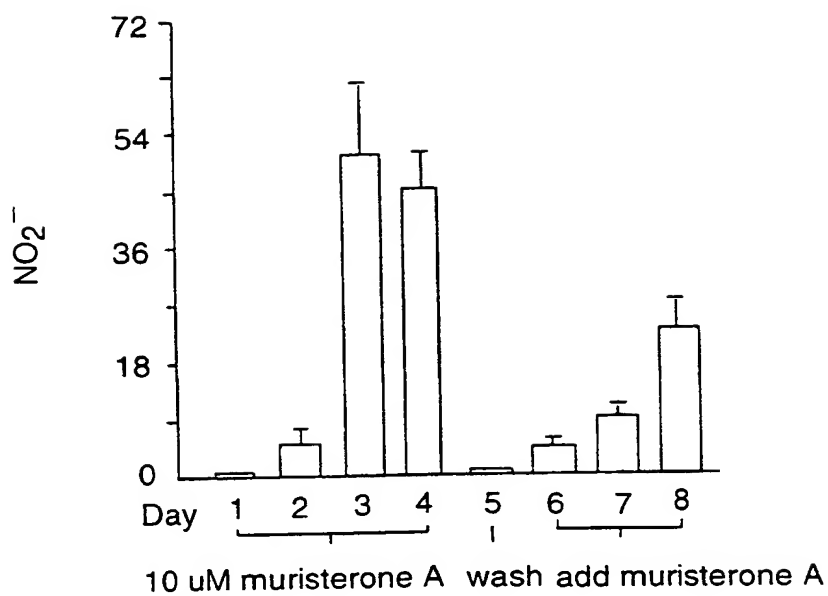
**Step 4**

The microcapsules may be stored  
 in medium or induced with  
 muristerone A to  
 produce nitric oxide (NO)

*In vitro* culture  
 or *in vivo*  
 injection/  
 transplantation  
 to animals.  
 Add muristerone  
 A for NO  
 production.

**Figure 4**

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Encapsulation of EcR 293 clone11 cells  
and induction of NO by muristerone A

**Figure 5**



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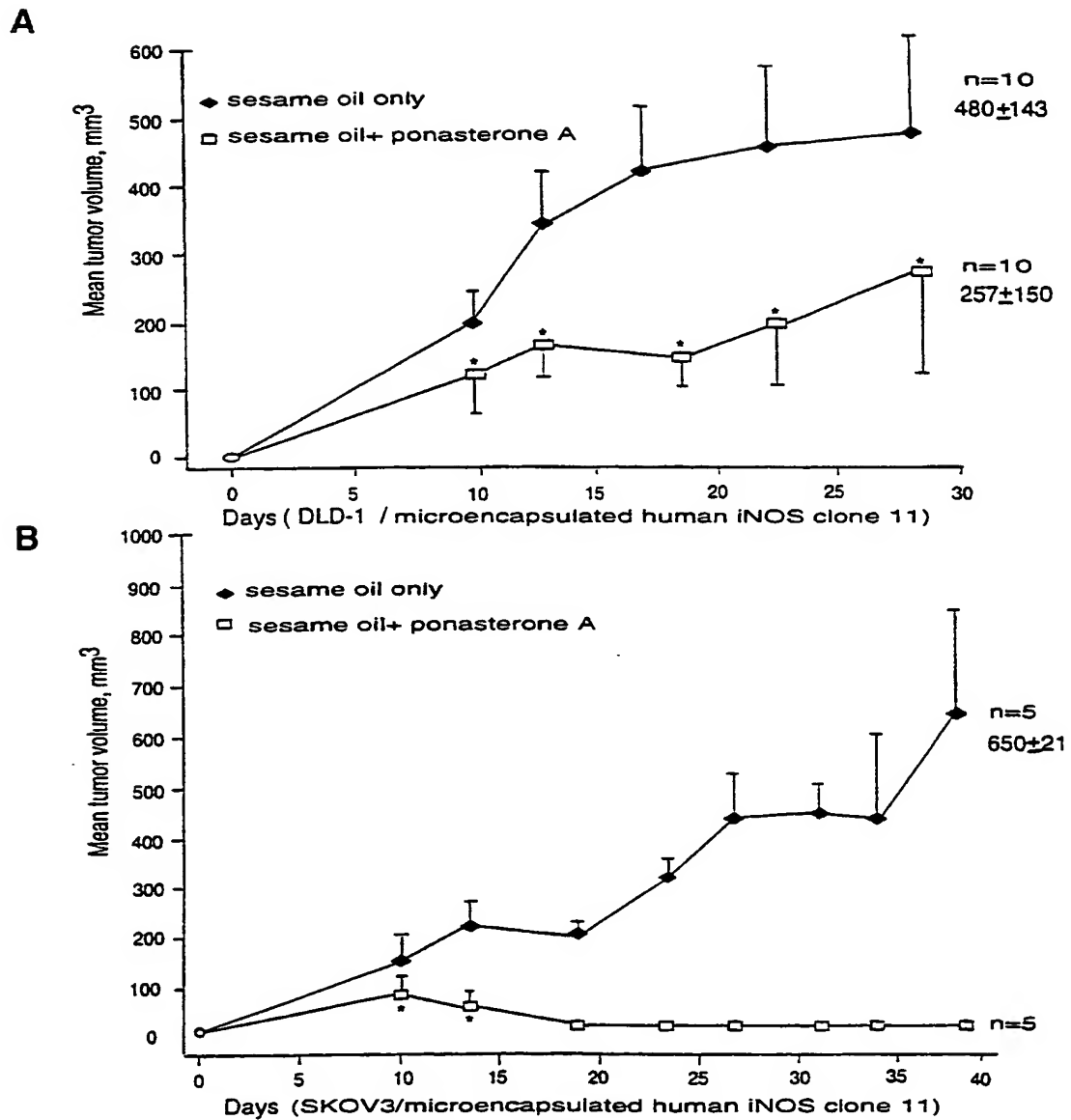


Figure 6